

REMARKS

Reconsideration and allowance of this application is respectfully requested. Claims 1-11 have been cancelled. Claims 12-25 have been added and are submitted for the Examiner's consideration.

In the Office Action, the Examiner objected to claims 1 and 5-11 because of various informalities. Claims 1-11 have been cancelled and claims 12-25 substituted therefor. The new claims are written to avoid the informalities and to better conform with United States practice.

Claims 1-11 were rejected under 35 U.S.C. § 102(b) as being anticipated by Smith (U.S. Patent No. 5,742,229). Claims 1-11 have been cancelled. It is submitted that new claims 12-25 are patentably distinguishable over Smith.

Electronic devices that perform one or more functions may be configured as a card having the same shape as a memory card that is connectable to a main unit in the same manner as a memory card. Such electronic device cards, however, often draw much more current than a typical memory card. The increased current may exhaust the internal battery of the main unit, cause a supply voltage drop that prevents the electronic device card from functioning properly, or damage the main unit. These problems may occur even when the connectors between the electronic device card and the main unit are modified for increased current consumption.

The present invention addresses this problem by storing a current consumption value that indicates a requested current that is to be drawn by the electronic device when carrying out one or more functions and that is output for delivery to the main unit so that when the current consumption value does not exceed a maximum driving current for the main

unit, a driving current associated with the current consumption value is received from the main unit.

The Smith patent is concerned with dispensing electrical power from a station 1,...,n to a vehicle 1 for recharging a battery within the vehicle. The station includes a power supply 12, a card reader 14, and a local controller 10 having a microprocessor 10a. To recharge the vehicle, a consumer first inserts a card 2 having a magnetic stripe, a barcode, punched-out openings, or other medium for conveying indicia 3 that includes the user's account number and other information, into the card reader 14. The microprocessor 10a of the local controller 10 transmits the information to a central controller 20. If authorization is received from the central controller 20, the local controller 10 activates the power supply 12 to recharge the battery of the vehicle and then monitors the elapsed time and power utilized by monitoring the actual current flow. Alternatively, in place of the central controller, a monetary value is stored within a memory 28 within the card 2, and the local controller 10 debits the card. (See Figs. 1a, 1b, 2a, 2b, 3 and 4; column 3, line 66 - column 4, line 60; and column 6, lines 14-31). The vehicle 1 includes a communication controller 1a and a memory 1b that stores user-specific information including vehicle identification, account number and last charging operation. (See Fig. 6; and column 7, lines 16-34).

The Examiner contends that Smith teaches the claimed electronic device by describing the vehicle 1. However, Smith merely describes that the memory 1b of the vehicle 1 stores information relating to a *last charging operation*. The reference does not suggest storing a value indicating a *requested current* that is to be drawn *during* execution of a function.

Smith also describes that the communications controller 1a uses the information relating to the last charging operation, in conjunction with an odometer reading and the current charging information, to *monitor* the energy efficiency of the vehicle. The patent does not suggest *storing* the energy efficiency information or *storing* a current consumption value.

Moreover, though the microprocessor 10a of the station monitors the current flow from the power supply 12, the *actual current drawn* is measured. Smith does not suggest that the station stores a value indicating a *requested current to be drawn* during execution of a function.

It follows that Smith does not suggest:

a register having a region for storing a current consumption value indicating a requested current to be drawn by said electronic device during execution of the at least one function

as called for in claim 12.

Smith also describes a data entry console 1d in the vehicle that may be employed by the user to initiate information transfer, such as an account number transfer, from the vehicle 1 to the charging station 2. Alternatively, the communications controller 1a in the vehicle may carry out the information transfer function in conjunction with the microprocessor 10a. (See FIG. 6, and column 7, lines 36-45). The patent, however, does not suggest that the vehicle transfers a value indicating *the requested current to be drawn* during execution of a function and therefore does not suggest that such a value is *output* from the vehicle for delivery to the charging station.

Additionally, Smith describes that upon verification of the *account number* by the central controller 20, the charging operation begins. (See column 4, lines 26-44; and column 7, lines 46-58). There is no suggestion that charging begins when

a *current consumption value* does not exceed a *maximum driving current*.

Smith does not suggest:

an interface for outputting the current consumption value from said register for delivery to the main unit and for receiving a driving current from the main unit when the current consumption value does not exceed a maximum driving current for the main unit

as defined in claim 12.

It follows that Smith does not suggest the combination called for in claim 12 and does not anticipate the claim.

Claims 13-17 depend from claim 12 and each includes the limitations set forth in the independent claim as well as calls for additional limitations. It follows that each of claims 13-17 likewise defines a combination that is patentably distinguishable over Smith.

Additionally, Smith does not suggest storing permission information based on whether the current consumption value does not exceed the maximum driving current as defined in claim 13, storing function enablement information as recited in claim 14, outputting function enablement information as called for in claim 15, a plurality of contacts with one contact being maintained at a high impedance until the function is enabled as defined in claim 16, or storing a version number that is output when connected to the main unit as recited in claim 17.

The Examiner also asserts that Smith teaches a main unit in the form of the charging station. However, as described above, Smith's local controller 10 reads indicia 3 from the surface of a *card 2* that is inserted into the card reader 14. The patent does not suggest reading a value indicating a *requested current to be drawn* by the vehicle during execution.

Smith does not suggest:

a first reader for reading a current consumption value from a register in the electronic device, the current consumption value indicating the current drawn by the electronic device during execution of at least one function of the electronic device

as set out in claim 18.

Moreover, as set out previously, the local controller begins charging the vehicle upon receiving authorization from the central controller 20 based on the card indicia information or after debiting the consumer's card. The reference does not suggest supplying a driving current when a current consumption value does not exceed a maximum driving current value.

Smith does not suggest:

a supply unit for supplying a driving current to the electronic device when the current consumption value does not exceed a maximum driving current value

as recited in claim 18.

Therefore, Smith does not suggest the combination defined in claim 18 and does not anticipate the claim.

Claims 19-21 depend from claim 18 and are distinguishable over Smith at least for the same reasons.

Additionally, Smith does not suggest writing permission information in the register of the electronic device as defined in claim 19, reading enablement information from the electronic device as recited in claim 20, or writing a current consumption value in the electronic device as called for in claim 21.

Claim 22 includes limitations similar to those set out in claims 12 and 18 and is distinguishable over the Smith patent at least for the same reasons.

Claims 23-25 depend from claim 22 and are similarly distinguishable over Smith. Additionally, claim 23 includes

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limitations similar to those recited in claims 13 and 19, claim 24 includes limitations similar to those defined in claims 14 and 20, and claim 25 includes limitations similar to those defined in claims 17 and 20, and each is further distinguishable over Smith at least for the same reasons.

Accordingly, the withdrawal of the rejection under 35 U.S.C. § 102 is respectfully requested.

As it is believed that all of the rejections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited. If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that the Examiner telephone Applicants' attorney at (908) 654-5000 in order to overcome any additional objections which the Examiner might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

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Respectfully submitted,

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